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FOREIGN AGRICULTURE ECONOMICS

U.S. and Russian Agriculture, A STATISTICAL COMPARISON

by G. Stanley Brown

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This brief statistical compendium presents comparative data on inputs, farm organization, and agricultural output in the United States and the Soviet Union. Except for historical series on area, yield, and production of grain, the comparison is limited to 1963.

The U.S. lead in agricultural productivity is somewhat overstated in this comparison. U.S. crop output was at a record high in 1963, despite critical moisture shortages in the Southern Plains and Mid-Atlantic States. Conversely, the Soviet crop production index in 1963 was at its lowest level since 1958 because of a crop failure in the Virgin Lands and extensive drought in European USSR.

Data on U.S. agriculture are from publications of the U.S. Department of Agriculture unless otherwise noted. Most data on Soviet agriculture are from Soviet sources, but are expressed in units common to the United States. Certain data on Soviet agriculture are U.S. estimates, necessitated by the unavailability of information (e.g., labor force), or the unreliability of official Soviet statistics (e.g., crop production, especially grain).

For a comprehensive review of the current situation in Soviet agriculture, consult:

The 1965 Eastern Europe Agricultural Situation, Econ. Res. Serv., U.S. Dept. Agr., ERS-Foreign 115, Mar. 1965.

Soviet Agriculture Today, U.S. Dept. Agr., Foreign Agr. Econ. Rpt. 13, Dec. 1963.

The following tables update earlier data in Agriculture in the United States and the Soviet Union, Econ. Res. Serv., U.S. Dept. Agr. ERS-Foreign 53, Aug. 1963.

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Economic Research Service → U. S. Department of Agriculture

Table 1.--United States and Soviet Union: Agricultural resources

Item	Year	Unit	United States	Soviet Union	USSR as percentage of U.S.
					Percent
Population	7/1/63	Million	1/189.4	2/224.8	119
Civilian labor force (work experience)	1962	do.	3/82.0	4/115.0	140
Annual average employment	1963	do.	5/68.8	6/102.0	148
Agricultural labor force (work experience)	do.	do.	7/6.5	8/47.0	723
Annual average employment in agriculture	do.	do.	9/4.9	10/37.0	755
Farm share of total labor force (work experience)	do.	Percent	7.9	40.9	--
Farm share of total employment (annual average)	do.	do.	7.1	36.3	--
Sown crop land	do.	Mil. acres	11/309	12/540	175
Sown crop land per capita	do.	Acre	1.6	2.4	150
Tractors on farms	1/1/64	Thousand	13/4,657	14/1,442	31
Motor trucks on farms	do.	do.	13/2,915	14/922	32
Grain combines on farms	do.	do.	13/1,010	14/517	51
Agricultural consumption of electricity	1962	Bil. kwh.	15/28	16/14.1	50
Use of commercial fertilizer in terms of principal plant nutrients:					
Total	1963	1,000 tons	17/9,532	18/3,594	38
Per acre of sown area	do.	Pound	62	15	24

1/ U.S. Bureau of the Census, Statistical Abstract of the United States: 1964. Eighty-fifth edition. Washington, D.C., 1964. p. 5. 2/ USSR Central Statistical Administration, Narodnoe khozyaystvo SSSR v 1962 godu. Moscow, 1963. p. 8. 3/ Statistical Abstract ..., op. cit. p. 219. 4/ USDA estimate based on Soviet census of 1959. 5/ Statistical Abstract ..., op. cit. p. 216. 6/ U.S. Bureau of the Census preliminary estimate. 7/ USDA, Office of Information, Fact Book of U.S. Agriculture. Washington, D.C., Jan. 1965. p. 3. 8/ USDA estimate based on Soviet census of 1959. Persons employed in agriculture in 1962, including those working their private plots. 9/ Statistical Abstract ..., op. cit. p. 216. 10/ U.S. Bureau of the Census preliminary estimate. 11/ USDA, Statis. Rptg. Serv., Crop Production: 1964 Annual Summary. Washington, D.C., Dec. 1964. p. 6. 12/ Narodnoe khozyaystvo SSSR v 1963 godu. Moscow, 1965. p. 242. 13/ USDA, Econ. Res. Serv., Changes in Farm Production and Efficiency, Summary Report, 1964, Statis. Bull. 233. Washington, D.C., July 1964. p. 30. 14/ Narodnoe khozyaystvo 1963 ..., op. cit. p. 332. 15/ Fact Book ..., op. cit. p. 31. 16/ Narodnoe khozyaystvo 1963 ..., op. cit. p. 337. 17/ Changes in Farm Production ..., op. cit. p. 22. 18/ Narodnoe khozyaystvo 1963 ..., op. cit. p. 300.

Table 2.--United States and Soviet Union: Farm numbers and size, and selected data per farm, 1963

Item	Unit	U.S. farms	Soviet Union	
			Collective farms	State farms
Total	Number	1/3,573,000	2/38,772	2/9,176
Land area per farm	Acre	3/325	4/32,470	5/147,300
Sown area per farm	do.	86	4/7,156	6/24,160
Workers per farm	Number	1.4	7/411	8/775

1/ USDA, Econ. Res. Serv., Farm Income Situation, FIS-196. Washington, D.C., Nov. 1964. p. 22. 2/ Narodnoe khozyaystvo 1963 ..., op. cit. pp. 348, 356. 3/ Fact book ..., op. cit. p. 5. 4/ Narodnoe khozyaystvo 1963 ..., op. cit. pp. 238, 342, 348. 5/ Ibid. pp. 238, 356. Includes all state agricultural enterprises. 6/ Ibid. p. 358. 7/ Ibid. p. 342. Households per Soviet collective farm. 8/ Ibid. p. 358.

Table 3.--United States and Soviet Union: Crop acreage, 1963

Crop	United States 1/	Soviet Union 2/	USSR as percentage of U.S.
	- - - -1,000 acres - - -		Percent
Corn, grain	60,549	17,280	29
Wheat	45,209	159,600	353
Rye 3/	1,594	37,100	2,327
Oats	21,683	14,100	65
Barley	11,566	4/50,700	438
Sorghum grain	13,582	5/	-
Rice	1,771	247	14
Cotton	14,212	6,130	43
Soybeans for beans	28,580	5/	-
Sunflowers	5/	10,860	-
Peanuts harvested for nuts	1,409	5/	-
Flax 6/	3,183	3,620	114
Sugar beets 7/	1,235	9,261	750
Sugarcane, for sugar and seed	579	5/	-
Tobacco	1,176	8/405	34
Potatoes	1,347	21,000	1,559
Sweet potatoes	196	5/	-
Vegetables 9/	3,354	3,556	106
Fruits and berries, including citrus 10/	2,499	5,011	201
Citrus	703	5/	-
Hay, all	66,738	5/	-

1/ Area harvested. Crop Production ..., op. cit. pp. 3-4, 51. 2/ Sown area after completion of spring planting. Narodnoe khozyaystvo 1963 ..., op. cit. pp. 242, 243, 295. 3/ Includes only winter rye in the USSR. 4/ USSR Central Statistical Administration, SSSR v tsifrakh v 1963 godu. Moscow, 1964. p. 96. 5/ Not available. 6/ Flaxseed in the U.S.; fiber flax in the USSR. 7/ Includes only sugar beets for factory processing in the USSR. 8/ USDA estimate. 9/ U.S.: commercial acreage only. 10/ U.S.: 21 fruits only.

Table 4.--United States and Soviet Union: Yield per acre and production of major crops, 1963

Crop	Unit	Yields per acre		USSR as percentage of U.S.	Unit	Production		USSR as percentage of U.S.
		U.S. 1/	USSR			U.S. 1/	USSR 2/	
				Percent				Percent
Corn, grain	Bushel	67.6	22.3	33	1,000 bushels	4,091,685	3/386,000	9
Wheat	do.	25.3	9.2	36	do.	1,142,013	3/1,470,000	129
Rye	do.	18.3	12.4	68	do.	29,215	3/461,000	1,578
Oats	do.	45.2	18.1	40	do.	979,400	3/255,000	26
Barley	do.	35.1	14.9	42	do.	405,577	3/753,000	186
Grain sorghum	do.	43.3	4/	-	do.	587,909	4/	-
Rice, rough	Pound	3,968	2,400	60	1,000 tons	3,514	3/ 300	9
Cotton, lint	Pound	517	637	123	1,000 bales	15,334	8,138	53
Soybeans for beans	Bushel	24.5	4/	-	1,000 bushels	699,363	3/10,400	1
Sunflowerseed	Pound	4/	726	-	1,000 tons	4/	3/3,940	-
Peanuts harvested for nuts	Pound	1,435	4/	-	do.	1,011	4/	-
Flaxseed	Bushel	9.8	4/	-	1,000 bushels	31,151	3/10,000	32
Sugar beets	Ton	18.9	5.2	27	1,000 tons	23,328	5/48,559	208
Sugarcane, for sugar and seed	do.	41.6	4/	-	do.	24,073	4/	-
Sugar production 6/	-	-	-	-	do.	7/6,439	8/6,477	101
Tobacco	Pound	1,993	840	42	1,000 pounds	2,343,230	3/340,000	15
Fiber flax	do.	4/	232	-	1,000 tons	4/	419	-
Potatoes	Cwt.	201.8	67.9	34	1,000 Cwts.	271,730	3/1,425,000	524
Sweetpotatoes	Cwt.	80.6	4/	-	1,000 Cwts.	15,831	4/	-
Vegetables	-	4/	4/	-	1,000 tons	9/19,040	16,700	88
Citrus	-	4/	4/	-	do.	6,209	4/	-
Grapes	-	4/	4/	-	do.	3,793	2,835	75
Total fruits (including citrus, grapes and berries)	-	4/	4/	-	do.	10/16,659	7,067	42
Hay, all kinds	Ton	1.74	4/	-	do.	116,095	4/	-

1/ Crop Production: 1964 ..., op. cit. pp. 3,4,5, and 50. 2/ Narodnoe khozyaystvo 1963 ..., op. cit. pp. 276-286, 299. 3/ USDA estimate. 4/ Not available. 5/ For sugar production. 6/ Raw value, 1963/64 processing year. 7/ Production in 1963/64 from continental beet and cane, and from Puerto Rico, Hawaii, and Virgin Islands. USDA, Foreign Agri. Serv., World Agricultural Production and Trade. Washington, D.C., Nov. 1964. p. 6. 8/ Production from domestic beets. 9/ Commercial production. 10/ Excluding berries.

Table 5.--United States and Soviet Union: Livestock numbers, 1964 1/

Livestock	United States 2/	Soviet Union 3/	USSR as percentage of U.S.
	Million head	Million head	Percent
All cattle	106.7	85.4	80
Cows	4/48.6	5/38.3	79
Hogs	58.1	40.9	70
Sheep	28.0	133.9	478
Horses	6/3.0	8.5	283
Poultry	7/376.2	8/550.4	146

1/ Beginning of year. 2/ USDA, Statis. Rptg. Serv., Livestock and Poultry Inventory, January 1. Washington, D.C., Feb. 1965. p. 9. 3/ Narodnoe khozyaystvo 1963 ..., op. cit. p. 311. 4/ Two years and older. 5/ All cows. 6/ Fact Book ..., op. cit. p. 31. 7/ Chickens and turkeys. 8/ All poultry; 1963. Narodnoe khozyaystvo 1962 ..., op. cit. p. 307.

Table 6.--United States and Soviet Union: Production of livestock commodities, 1963

Commodity	Unit	United States	Soviet Union 1/	USSR as percentage of U.S.
				Percent
Beef and veal	Million pounds	2/17,350	6,930	40
Pork	do.	2/12,439	6,940	56
Mutton, lamb and goat	do.	2/770	2,120	275
Poultry meat	do.	3/7,400	1,760	24
Lard	do.	4/2,476	1,390	56
Margarine and shortening	do.	4/4,355	5/1,248	29
Tallow and grease	do.	4/4,490	460	10
Milk (cows)	do.	3/124,800	114,640	92
Butter	do.	6/1,434	7/1,927	134
Eggs	Billion	3/63.4	8/28.5	45
Wool	Million pounds	9/287	814	284

1/ USDA estimate. 2/ USDA, ERS, Livestock and Meat Situation, LMS-140. Washington, D.C., Nov. 1964. p. 27. 3/ Fact Book ..., op. cit. pp. 22,23. 4/ USDA, Econ. Res. Serv., Fats and Oils Situation, FOS 222. Washington, D.C., March 1964, p. 30. 5/ Narodnoe khozyaystvo 1963 ..., op. cit. p. 204. 6/ USDA, Econ. Res. Serv., Milk Production and Dairy Products, 1964, DA 3 (65). Washington, D.C., February 1965. 7/ Tsifrakh ..., op. cit. p. 87. 8/ Narodnoe khozyaystvo 1963 ..., op. cit. p. 314. 9/ USDA, Foreign Agri. Serv., World Agricultural Production and Trade. Washington, D.C., August 1964. p. 10.

Table 7.--United States and Soviet Union: Area of major grains, 1955-59 average, 1963

Item	1955-59 average			1963		
	U.S. 1/	USSR 2/	USSR as percentage of U.S.	U.S. 1/	USSR 3/	USSR as percentage of U.S.
	1,000 acres	1,000 acres	Percent	1,000 acres	1,000 acres	Percent
Corn, grain	66,409	11,853	18	60,549	17,300	29
Oats	33,093	36,109	109	21,683	14,100	65
Barley	14,391	24,809	172	11,566	50,700	438
Sorghum grain	14,742	-	-	13,582	-	-
4 feed grains	128,635	72,771	57	107,380	82,000	76
Wheat	49,128	158,722	323	45,209	159,600	353
Rye	1,729	44,742	2,588	1,594	37,100	2,327
Buckwheat	90	5,384	5,982	40	4,448	11,120
Rice	1,547	299	19	1,771	247	14
4 food grains	52,494	209,147	398	48,614	201,400	414
Total, 8 grains	181,129	281,918	156	155,994	283,400	182

1/ Crop Production ..., op. cit. p. 41. 2/ USSR Central Statistical Administration, Sel'skoe khozyaystvo SSSR, Moscow, 1960. pp. 132-33. 3/ Tsifrakh ..., op. cit. p. 96.

Table 8.--United States and Soviet Union: Yields per acre of major grains, 1955-59 average, 1963

Item	1955-59 average			1963		
	U.S. 1/	USSR	USSR as percentage of U.S.	U.S. 1/	USSR	USSR as percentage of U.S.
	Bushels	Bushels	Percent	Bushels	Bushels	Percent
Corn, grain	48.7	25.0	51	67.6	22.3	33
Oats	38.6	22.9	59	45.2	18.1	40
Barley	29.5	17.8	60	35.1	14.9	42
Sorghum grain	29.2	-	-	43.3	-	-
4 feed grains 2/	2,072	883	43	2,914	803	28
Wheat	22.2	12.0	54	25.3	9.2	36
Rye	15.6	13.4	86	18.3	12.4	68
Buckwheat	17.5	7.2	41	20.7	6.5	31
Rice, rough	70.9	36.8	52	88.2	53.5	61
4 food grains 2/	1,390	720	52	1,588	576	36
Total, 8 grains 2/	1,874	762	41	2,501	642	26

1/ Crop Production ..., op. cit. p. 44. 2/ Pounds per acre.

Table 9.--United States and Soviet Union: Production of major grains, 1955-59 average, 1963

Item	1955-59 average			1963		
	U.S. 1/	USSR 2/	USSR as percentage of U.S.	U.S. 1/	USSR 2/	USSR as percentage of U.S.
	Mil. bu.	Mil. bu.	Percent	Mil. bu.	Mil. bu.	Percent
Corn, grain	3,235	297	9	4,092	386	9
Oats	1,278	828	65	979	255	26
Barley	424	441	104	406	753	185
Sorghum grain	430	-	-	588	-	-
4 feed grains 3/	133	32	24	156	33	21
Wheat	1,095	1,911	174	1,142	1,470	129
Rye	27	599	2,218	29	461	1,580
Buckwheat	2	38	1,900	1	29	2,900
Rice, rough	110	11	10	156	13	8
4 food grains 3/	36	75	208	39	58	149
Total, 8 grains 3/	170	107	63	195	91	47

1/ Crop Production ..., op. cit. p. 46. 2/ USDA estimate. 3/ Million short tons.

Table 10.--Soviet Union: Production of five major grains and total grain, USDA estimates and official Soviet estimates, 1958-64

Year	Total grain 1/		Five major grains 2/	
	USDA estimates	Soviet official 3/	USDA estimates	Soviet official 3/
	Million metric tons			
1958	115.0	134.7	110.0	128.9
1959	94.2	119.5	90.6	115.3
1960	95.0	125.5	89.4	118.4
1961	109.4	130.8	102.2	122.5
1962	111.9	140.2	101.6	127.9
1963	89.3	107.5	81.6	4/
1964	5/115.1	6/150.0	103.9	4/

1/ Wheat, rye, barley, oats, corn for grain, millet, buckwheat, rice, pulses (immature corn excluded in both categories). 2/ Wheat, rye, barley, oats, corn for grain. 3/ Narodnoe khozyaystvo 1963 ..., op. cit. pp. 234-5. 4/ Not available. 5/ The increasing gap between total grain and the five major grains since 1958 is due to the rapid expansion of pulses. 6/ Implied in Ekonomika Sel'skogo Khozyaystva, No. 2, 1965. p. 2.

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